

### REMARKS

This application has been carefully reviewed in light of the Office Action dated October 27, 1998. Claims 66-68, 70, 71, 73-75, 77, 78 and 80-105 are now presented for examination. Claims 66, 67, 73, 74, 75 and 80 have been amended in terms which more clearly define the present invention. Claims 81-105 have been added to ensure Applicant with a more complete scope of protection. Claims 69, 72, 76 and 79 have been cancelled without prejudice. Claims 66, 73, 80, 85, 95 and 105 are the independent claims. Favorable reconsideration is requested.

In the Office Action, Claims 43-66 were rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent 5,398,311 (Seto) in view of U.S. Patents 4,897,638 (Kokunishi et al.) and 5,562,350 (Sakurai).

Cancellation of Claims 69, 72, 76 and 79 renders their rejection moot. In regard to the other claims, Applicant respectfully submits the following comments.

Claim 66 as amended is directed to an outline forming apparatus including means for storing pattern data which includes coordinate data corresponding to a first outline point of a pattern having a first weight, and vector information corresponding to the first outline point. The vector information indicates a curve of second degree or more on which the first outline point moves to a second outline point of a pattern having a second weight. The apparatus also includes means for inputting weight of a pattern, and

means for converting the coordinate data corresponding to the first outline point into coordinate data corresponding to a third outline point of a pattern having the input weight based on the vector information.

By virtue of the structure recited in Claim 66, the present invention is capable of generating character patterns having a plurality of weights while maintaining the appearance of the character. In particular, Claim 66 recites that the vector information indicates a curve of second degree or more on which the first outline point moves to a second outline point having a second weight. For example, as shown in the embodiment of Fig. 10, some characters require the movement vector, i.e., path, to be a curve of second degree or higher (see page 20, lines 17-25, of the specification).

Seto shows a character processing apparatus which moves contour points based on a designated weight (P4 to P11 shown in Fig. 2C). Each path on which the points P6 and P7, for example, move is a horizontal straight line. The paths on which the points P4, P5, P8 to P11 move are straight lines having an inclination of  $H/V$  or  $-H/V$ . Accordingly, Seto merely teaches moving a contour point on a straight line in conjunction with weight.

As understood by Applicant, Kokunishi et al. relates to a method of generating outline pattern data based on stored skeleton pattern data and stroke thickness data. Figure 5 of Kokunishi et al. shows generating outline

characteristic points positioned along a straight line based on an input weight and the skeleton points. For example, in Fig. 5, points 601-604 are skeleton points. Points 611-619 are outline characteristic points which are positioned along straight lines from a respective skeleton point (see col. 11, lines 25-65).

Sakurai shows changing font type (vector font data) in conjunction with character size. Applicant submits that Sakurai merely shows storing a plurality of font data sets corresponding to a plurality of character sizes, and does not teach moving outline points so as to generate a pattern having a different size.

Even if the above discussed references are deemed to teach or suggest moving an outline point on a straight line in conjunction with weight, the references are not believed to teach or suggest moving an outline point on a curve of second degree or more in conjunction with weight.

Accordingly, at least for this reason, Claim 66 is believed patentable over Seto, Kokunishi et al. and Sakurai, taken separately or in any proper combination.

Claims 73 and 80 are method and memory medium claims corresponding to apparatus Claim 66, and therefore are believed to be patentably distinct from the cited prior art for the same reasons as Claim 66.

Claim 85 is directed to an outline forming apparatus including means for storing pattern data which includes coordinate data corresponding to a first outline

point of a pattern having a first weight, and vector information corresponding to the first outline point. The vector information indicates the path on which the first outline point moves to a second outline point of a pattern having a second weight. The vector information includes a plurality of vector data which indicate a plurality of different lines comprising the path. The vector information also includes change information indicating which vector data is to be used for each weight. The apparatus also includes means for inputting weight of a pattern and means for obtaining vector data based on the change information and the input weight. Further, the apparatus includes means for converting the coordinate data corresponding to the first outline point into coordinate data corresponding to a third outline point of a pattern having the input weight based on the obtained vector data.

By virtue of the features recited in Claim 85, the movement vector of a control point can vary according to a certain weight serving as a boundary (see page 45, lines 9-15, of the specification). This allows for better control of control point movement as weights change.

As discussed above, Seto and Kokunishi et al. may be deemed to teach one straight line on which each outline points moves in conjunction with a change in weight. Nothing has been found in the cited references, however, that teaches or suggests vector information including a plurality of vector data which indicate a plurality of different lines

comprising the path and change information indicating which vector data is to be used for each weight so that vector data may be obtained based on the change information and the input weight, as recited in Claim 85.

Accordingly, at least for this reason, Claim 85 is believed patentable over Seto, Kokunishi et al. and Sakurai.

Claims 95 and 105 are method and memory medium claims corresponding to apparatus Claim 85, and therefore are believed to be patentably distinct from the cited prior art for the same reasons as Claim 85.


A review of the other art of record has failed to reveal anything which, in Applicant's opinion, would remedy the deficiencies of the art discussed above, as references against the independent claims herein.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration or reconsideration, as the case may be, of the patentability of each on its own merits is respectfully requested.

An Information Disclosure Statement is submitted herewith.

Applicant's undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Fred A. Dams", is written over a horizontal line.

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